

ABSTRACT

A voltage regulator of a vehicle AC generator includes a rotor having a plurality of magnetic poles, a field coil for polarizing magnetic poles, an armature having an armature core with a plurality of phase windings for generating AC voltage under the influence of rotating magnetic field provided by the rotor and a full-wave rectifier for converting the AC voltage into DC voltage. The voltage regulator is comprised of a circuit for detecting phase voltage of one of the phase windings, and a comparator for comparing the phase voltage with a variable threshold level formed from the phase voltage and providing an output signal. Even if the phase voltage is biased by a DC bias voltage due to leak in the armature, the rotation of the rotor can be detected.